

Amendments to the Specification:

Please replace the paragraphs on page 1, line 3 with the following paragraph:

~~Technical Field~~ Background

Please delete the paragraph on page 1, line 13:

~~Background Art~~

Please replace the paragraph beginning on page 1, line 16 and ending on page 1, line 22 with the following paragraphs:

Application W096/22327 describes a polymer formulation suitable for injection molding comprising 5-65% by weight of EP(D)M, 1-30% of ~~polyalkanylene~~ polyalkenylene and their mixtures, grafted onto a matrix of polypropylene. This formulation has good processability and reduced stickyness, but, like other similar formulations, has little scratch resistance and can not be subjected to welding, gluing or painting processes.

Please replace the paragraphs beginning on page 2, line 21 and ending on page 3, line 9 with the following paragraphs:

According to a preferential embodiment of the invention, the formulation contains polybutadiene-based polyurethanes obtained from precursors consisting of ~~functinalized~~ functionalized polybutadienes, i.e. polybutadienes having -OH, -NCO, -COOH groups.

According to a further embodiment of the invention, the formulation contains the above mentioned precursory functionalized polybutadienes instead of or in addition to the polyurethane obtained therefrom.

According to another preferential aspect, the formulation also comprises 5-30% of cellulose by weight of the total of the formulation. The invention further relates to a composition for the preparation of a polymer formulation of the type above described, ~~characterized according to Claim 5~~ the composition comprising by weight out of the total weight of the polymers, 10-80% of a polyolefin selected from polyethylene and

polypropylene, 10-85% by weight of an EP(D)M rubber, 0-40% of a polybutadiene, 0.5-60% of at least one unsaturated compound selected from ethylene-vinyl acetate copolymers and terpolymers, NBR, ethylene-acrylic ester copolymers and terpolymers, and polybutadiene-based polyurethanes or their precursors the maximum total amount of polybutadiene and of unsaturated compounds being 60% by weight.

The invention further relates to a process for the production of a thermoplastic polymer formulation, ~~characterized according to Claim 8~~ the process comprising, by weight of the total weight of the polymers, 10-80% of a polyolefin selected from polyethylene and polypropylene, 10-85% by weight of an EP(D)M rubber, 0-40% of a polybutadiene, 0.5-60% of at least one unsaturated compound selected from ethylene-vinyl acetate copolymers and terpolymers, NBR, ethylene-acrylic ester copolymers and terpolymers, and polybutadiene-based polyurethanes or their precursors, the maximum total amount of polybutadiene and of unsaturated compounds being 60% by weight, and 0.1-0.6% of at least one agent generating radicals, at a temperature such as to activate said radical-generating agent to effect a partial linking of at least some of the polymers present.

Please replace the paragraph beginning on page 4, line 2 and ending on page 4, line 9, with the following paragraph:

The thermoplastic polymer formulation according to the invention comprises, by percentage of the total weight of polymers (i.e. excluding the weight of possible fillers), 10-80% of polypropylene, 0-40% of polybutadiene, 10-85% by weight of EP(D)M and ~~0.5-60%~~ 0.5-60% of an unsaturated compound selected from among ethylene-vinyl acetate copolymers and terpolymers (e.g. EVA), NBR (nitrile-butadiene rubber), acrylic ethylene-ester copolymers and terpolymers (e.g. EMA, EBA), and polybutadiene-polyurethanes or their precursors.

Please replace paragraphs beginning on page 4, line 17 and ending on page 5, line 4, with the following paragraphs:

Precursors of the polybutadiene-polyurethanes ~~are here meaning functionalised~~ are refer herein to functionalized polybutadienes with terminal groups selected from -NCO, -OH and -COOH.

Polypropylenes suitable for use in the invention are propylene polymers and copolymers with ~~isotatic~~ an isotactic index greater than 30%, such as the copolymers of propylene with one or more ~~alpha-olefines~~ alpha-olefins having 2-10 atoms of carbon, as well as formulations of polypropylene obtained with sequential polymerization of polypropylene and of its mixtures with ethylene and/or ~~alpha-olefines~~ alpha-olefins. Isotactic (co)polymers are preferred. The suitable propylene (co)polymers have a MFI (Melt Flow Index) that can vary over a wide range and is preferably within the range of 0.1 and 60 at 230°C/ 21.6 N (ASTM 1238). Examples of suitable polypropylenes are those distributed commercially by Borealis under the proprietary name DAPLEN® and the codes DS10, US105A, CHC3007, FSC1012, and USC 1012.

Please replace the paragraph beginning on page 6, line 20 and ending on page 6 line 23, with the following paragraph:

Suitable NBR polymers are butadiene-acrylonitrile copolymers with acrylonitrile content within the range 25-35%. An example of a suitable NBR polymer is the one known as CHEMIGUM P86F from Goodyear, containing between 30.5 and 33.5% 33.5% of acrylonitrile.

Please replace the paragraph beginning on page 7, line 9 and ending on page 7, line 13, with the following paragraph:

According to the invention, besides the polybutadiene-based-polyurethanes, their precursors may also be used, i.e. polybutadienes prepared with functional terminal groups selected from -OH, -NCO, -COOH. Such precursors can also be used alone, instead of the other mentioned unsaturated compounds. ~~Preferably,~~

Please replace the paragraph beginning on page 9, line 21 and ending on page 10, line 2, with the following paragraph:

According to the present invention the composition comprises, in an analogous way to that described above, as a percentage by weight of the total weight of the polymers, 10-80% of polypropylene, 10-85% of an EP(D)M rubber, 0-40% of polybutadiene, and ~~0,5-60%~~ 0.5-60% of at least one unsaturated compound selected from ethylene-vinyl acetate copolymers and terpolymers, NBR, ethylene-acrylic-ester copolymers and terpolymers, and polybutadiene-based polyurethanes or their precursors, where the total amount of unsaturated compounds and polybutadiene is less than or equal to 60% by weight.

Please replace the paragraphs beginning on page 10, line 10 and ending on page 11, line 5 with the following paragraphs:

Other suitable agents are non-peroxide initiators such as 2,3-dimethyl-2,3-diphenyl hexane and ~~2,3-dimethyl-2,3-diphenyl-butane~~ 2,3-dimethyl-2,3-diphenyl butane. All the radicals-generating agents are able to generate radicals, and therefore to start ~~cross-linking~~ crosslinking, at the processing temperature of the composition, i.e. at the temperature reached by the composition when it has been melted, kneaded and is then extruded.

The process for the production of a thermoplastic polymer formulation according to the invention provides for the kneading in the molten state of a composition of the type described above, i.e. containing the radical-generating agents, at such a temperature as to activate said radical generating agents to create a plurality of active sites on the polypropylene chain. At least partial ~~cross-linking~~ crosslinking of the rubbers and a greater or lesser degradation of the polypropylene is obtained this way. In this phase, known also as "visbreaking" or "reactive extrusion", the polybutadiene acts as a grafting agent and grafts onto the polypropylene and the rubbers. It is presumed that, similarly, unsaturated compounds EVA and ethylene-vinyl acetate-maleic anhydride terpolymers, NBR, ethylene-acrylic ester co- and terpolymers and polybutadiene-based polyurethanes and their precursors also behave as grafting units on the polypropylene and the rubbers. The resultant composition will give a material with excellent mechanical and soft-touch characteristics and high scratch-resistance.

Please replace the paragraph beginning on page 11, line 8 and ending on page 11, line 14, with the following paragraph:

In order to avoid thermo-degradation phenomena of the components of the mixture, particularly during the reactive extrusion described above, antioxidants and stabilizers will be present in the usual amount, for instance between 0.1 and 1.5% by weight ~~on~~ of the total weight of the polymers. These additives are known in the art; examples of suitable additives are sterically hindered phenols, secondary amines, thioethers, phosphites and phosphonites.

Please delete the paragraph on page 11, line 19:

Best modes for carrying out the invention

Please replace the paragraph beginning on page 12, line 21 and ending on page 13, line 2, with the following paragraph:

52 parts of DUTRAL CS 9615 (an EPDM polymer oil-extended 45 %), 42 parts of Polypropylene DAPLEN FSC 1012 (MFI 5 at 230°C/ 5Kg), 0.4 parts of peroxide radical-generating agent ~~di (t-butyl)~~ di(t-butyl) peroxide-di-isopropylbenzene at 40% on inactive support, 0.4 parts of antioxidant additives, 1 part of LITHENE PH polybutadiene from REVERTEX CHEMICALS, 4 parts of KRASOL LBD (a polybutadiene with isocyanate end groups) and 0.2 parts of 2-ethyl-1,3-hexanediol (Aldrich) were mixed at 180-220°C in a Maris Ø 133 L/D= 40 co-rotating twin-screw extruder and then pelletized.